CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

STAFF REPORT
for
RESOLUTION NO. R9-2002-0146
401 WATER QUALITY CERTIFICATION
FOR THE
COUNTY OF ORANGE NEW ACCESS ROAD TO THE RANCHO POTRERO LEADERSHIP ACADEMY

I. INTRODUCTION

The Regional Water Quality Control Board received an application for 401 Water Quality Certification on December 14, 2001, from the County of Orange for the proposed construction of a new access road and redevelopment of the Rancho Potrero Leadership Academy (RPLA). RPLA will reactivate approximately five acres of a previously operational juvenile facility at the site by demolishing existing structures and building a new campus for a 90-bed minimum security youth residential custodial program of the County's Probation Department. It is located at the County-owned 338-acre Joplin Ranch property, which houses a 64-bed juvenile inmate program. The current access road, Road Canyon Road, to the site is inadequate to comply with County Special Fire Protection Area (SFPA) criteria. Expansion of Rose Canyon Road to serve the RPLA was initially the preferred alignment, but was eliminated from consideration following comments to the Draft Environmental Impact Report.

II. PROJECT DESCRIPTION

The proposed project is located within the County of Orange in the Trabuco Canyon area (Attachments 1 and 2). The proposed project would consist of paving and widening an access road approximately 2.7 miles long and the construction of five acres of buildings and infrastructure to support the RPLA program. Facilities to be constructed, include 48,300 square feet of buildings (administration/medical, separate girls and boys housing, school administration, classrooms, a dining facility, support services, and a gymnasium), and 125,000 square feet of outdoor facilities, including ball fields, courts, and parking areas (Attachment 3). The access road consists of two distinct sections. The lower portion of the road would widen and heighten approximately 1.4 miles of the existing, unpaved Trabuco Creek Road from its current terminus at Trabuco Canyon Road through an existing dip crossing of Arroyo Trabuco (to be replaced by a culvert crossing). From the crossing, the upper portion of the road would widen and improve an approximately 1.3 mile circuitous unpaved path uphill to the RPLA site. (Attachment 4 portrays existing conditions).

As shown on Attachment 2, the lower road is within the floodplain of Arroyo Trabuco and follows the alignment of the current Trabuco Creek Road. The project would widen Trabuco Creek Road to the SFPA criteria elevate it up to five feet to the 25-year flood elevation. Approximately 1.4 miles east of Trabuco Canyon Road, the access road crosses Arroyo Trabuco along the current low crossing alignment. The proposed crossing is 490-feet long and 30 feet wide and involves placing eight box culverts designed to pass a ten-year storm. The 1.4 mile upper road crosses several drainages, which will require 11 culverts sized to pass a 25-year storm event. The upper access road follows existing unpaved roads and trails through vacant land with scrubs and annual grasses and a closed clay mine to the RPLA site.

Existing Onsite and Surrounding Land Uses

The entire project area is within the County's Foothill Trabuco Specific Plan area and is primarily open space and rural/residential. The RPLA site is located on the 338-acre Joplin Ranch property owned by the County of Orange that houses the current Joplin Youth Center and the former Rancho Potrero facilities. The access road site travels primarily through open space, including the Arroyo Trabuco floodplain, wildlife corridors, and an abandoned clay mine. The lower access road crosses several private land holdings and Arroyo Trabuco. Several rural residential properties and a model airplane facility are located adjacent to the lower access road.

The RPLA facility is bordered by the Cleveland National Forest on the north and several private properties on the east, south, and west. Surrounding land uses consist of rural residential and isolated development within the canyons, and planned communities south of Arroyo Trabuco, including the City of Rancho Santa Margarita, Robinson Ranch, and Dove Canyon.

Impacts to Army Corps of Engineers Jurisdictional Waters of the U.S.

Construction of the project will impact approximately 0.74 acres jurisdictional non-wetland waters of the U.S. All impacts are associated with placement of fill for construction of the access road and storm drain discharge points. The upper access road would fill 12 impact areas affecting ephemeral drainages with riparian habitat that are tributary to Arroyo Trabuco via two drainages basins. The stream crossing would fill 0.34 acres of intermittent/perennial streambed, and the remaining portion of the lower road does not impact jurisdictional waters. Storm drain discharge points from the RPLA facility and upper road consist of ephemeral drainages averaging two-to-four feet in width. Limited riparian vegetation consisting of mule fat scrub is found in these drainages.

Water Quality Standards and Beneficial Uses

The proposed project area is located in the San Juan hydrologic unit, Mission Viejo hydrologic Area, and the Upper Trabuco hydrologic subunit Area (HSA 901.22). The proposed 2002 303(d) list does not include Trabuco Creek as impaired and the creek was not listed on the 1998 303(d) list. Beneficial uses of the area include AGR, IND, REC 1, REC 2, WARM, COLD, and WILD. In addition, the federally-listed arroyo toad (*Bufo californicus)* is known to occur in the project area, and the U.S. Fish and Wildlife Service considers the project area along Arroyo Trabuco to be occupied territory.

Beneficial uses within Arroyo Trabuco are not expected to be significantly impacted during construction or over the life of the project. The WARM and WILD beneficial uses will be impacted during project construction, and Best Management Practices (BMPs) will be implemented to restrict the impact area to the project area. Impacts resulting from construction activities will be addressed through compliance with State Water Resources Control Board Water Quality Order No. 99-08-DWQ, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity. BMPs and elements of project design, combined with compliance with the MS4 permit (Regional Board Order No. R9-2002-0001) will ensure that water quality standards are not impacted from post-construction stormwater and urban runoff.

Placement of the culverts at the crossing is not expected to impede passage of aquatic organisms (fish, amphibians, and invertebrates) that may occupy the channel during times of flow. The U.S. Fish and Wildlife Service notes that, while a bridge crossing is preferable for species migration, the arroyo toad could pass through the culverts as designed.

Based on hydraulic and sedimentation models prepared by the applicant, impacts to hydrologic and habitat functions in the vicinity of the culvert crossing are not expected to occur. Potential impacts would have included those associated with erosion or sedimentation, which could degrade species habitat. As a condition for 401 certification, the applicant will be required to submit an assessment after five years that confirms the conclusions of the models are accurate. If unforeseen impacts to beneficial uses are found to have occurred as a result of sediment transport, the applicant is required to implement suitable mitigation. Such feasible mitigation could include additional on-site preservation or off-site habitat enhancement.

Mitigation for Impacts to Waters of the U.S.

To mitigate for 0.71 acres of permanent impacts and 0.03 acres of temporary impacts to jurisdictional waters, 0.5 acres of on-site ephemeral drainages will be preserved in conservation easements. In addition, off-site mitigation will occur through eradication of 1.47 acres of *Arundo donax* and other exotic species within the Arroyo Trabuco portion of O'Neill Park as part of the County of Orange exotic species removal program.

Use of Best Management Practices

Best Management Practices (BMPs) to protect impacts to water quality from operation of the access road and RPLA facility have been incorporated into the project design. Several additional water quality BMPs have been incorporated subsequent to the EIR process. At the RPLA site porous pavement will be installed at four locations to maximize infiltration, and a catch basin insert will be installed at one of two discharge outlets (see Attachment 3). In addition, two drainage ditches along the upper road will be converted to unlined channels to promote infiltration. Runoff generated by the lower road will be conveyed in an unlined earthen shoulder that will be made of material to promote infiltration prior to discharge. Natural drainage patterns have been preserved to convey existing ephemeral drainages. Since runoff from the upper road will be directed to

these drainages, energy dissipaters will be placed to ensure the runoff is at non-erosive velocities.

Off-site local drainage will be passed under the lower road and directed to three outfalls constructed with riprap energy dissipaters to mitigate potential erosion resulting from the concentration of flows. These discharges are subject to the Municipal Storm Water Permit (MS4 permit), to which the applicant is a copermittee. At least one of these culverts will convey stormwater runoff from nursery operations on the plateau above Arroyo Trabuco. In accordance with the MS4 permit, the applicant is to implement or require implementation of appropriate BMPs at the nursery facilities and ensure that the discharges from the outfalls do not contribute to a violation of water quality standards. As a condition of 401 certification, the applicant is being required to implement or require implementation of BMPs at any such nurseries prior to construction of the project.

The proposed development of buildings and impermeable road surfaces will increase storm water runoff to Arroyo Trabuco in the project drainage areas. The redeveloped RPLA site and new access road will result in an increase of approximately 5-acre net increase in impermeable surfaces in two drainage sub-basins (Basins A and B). In addition, approximately 6.6 acres of the new access road will sheet flow to Arroyo Trabuco as it does under current conditions. Paving of unpaved roads and trails will result in less erosion from the road, but potentially higher velocities and discharges during storm events. This impact will be mitigated by energy dissipaters at the discharge points of the road. In addition, unlined v-ditches will be used where gradients permit to promote infiltration of road-generated runoff.

III. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

The County of Orange was the lead agency for preparation and circulation of the EIR. The Draft EIR was distributed to various public agencies, organizations, and individuals in November 2000. As a result of public comments received and the availability of new information, the proposed RPLA project was changed. One significant change was the substitution of the preferred road alignment alternative from Rose Canyon Road to Trabuco Creek Road. A Draft Recirculated EIR was released on July 18, 2001, and comments were received for a period of 45 days through the State Clearinghouse, Office of Planning and Research, and the County of Orange. The public review period ended on August 31, 2001. The Draft Recirculated EIR was distributed to cities, organizations, and individuals with an interest in the project, and to local libraries. The Notices of Availability were also published in the Orange County Register and Saddleback Valley News. Comments were also received during public hearings on the proposed project. The County of Orange filed a NOD on December 11, 2001.

A lawsuit was filed on January 10, 2002, by the Saddleback Canyons Conservancy and Rural Canyons Conservation Fund versus County of Orange, challenging the adequacy of the EIR. This complaint was amended May 1, 2002 to include additional causes of action related to unpermitted grading and clearing undertaken by the County at the Joplin Youth

Center in April 2002. The 401 certification is contingent upon a valid CEQA determination. If court action rules the CEQA determination associated with this project to be invalid, discharges associated with this 401 certification application are not permitted, and the applicant must submit a final certified CEQA document in order to receive a 401 certification.

IV. PUBLIC COMMENTS AND RESPONSES

Regional Board staff received comments on the proposed project, most of which addressed the adequacy of the CEQA process. Other comments addressed impacts to water quality from the access road and RPLA facility, impacts from asphalt used to construct the lower road, impacts to arroyo toad habitat, water supply, and unpermitted activities at the neighboring Joplin Youth Center. In addition, staff has received at least 5 comments requesting the Board postpone the hearing based on insufficient time for public review of material submitted by the applicant in response to questions from Regional Board staff. This analysis focuses on issues raised in public comment letters that are subject to Regional Board regulatory authority.

New Access Road and RPLA Facility Construction and Operation

Most potential impacts to water quality and arroyo toad habitat from the construction and operation of the new access road and RPLA site have been addressed above. Another concern raised by agencies was that erosion and scour from the lower access road could occur as a result of raising the artificial floodplain constraint. This was also modeled by the applicant and found to be insignificant because velocities were determined to be non-erosive. The 25 year flood is expected to only reach the lower access road in a narrow vicinity near the bottom of the road because in most cases the scrub between the creek and the road is at an elevation higher than the 25-year flood elevation. Impacts in the vicinity of contact with 25-year flood were found be negligible by the applicant because velocities in the area during storm events were found to be non-erosive.

An additional concern involves illegal recreational activity within Arroyo Trabuco. The applicant has noted that illegal off-road vehicular activity currently occurs in the project vicinity. The new road may attract additional users because of the paved condition in the lower portion. The new access road will include additional signage to discourage such uses, and the County expects to increase enforcement in the vicinity as a result of the controversial nature of the project.

Impacts from Material Used to Construct the Lower Road

The material used to construct the lower access road was of concern because asphalt could leach pollutants into the receiving waters. The applicant has submitted a response based on a review of a National Cooperative Highway Research Program report on construction and repair materials that adverse impacts to water quality are not expected. The applicant noted further noted that the “asphalt concrete” is the same material used to line many drinking water reservoirs

Enforcement Activity at the Joplin Youth Center

Wastewater treatment and disposal from the RPLA site will be incorporated to the existing regulated facility on-site at Joplin. On approximately April 23, 2002, the County Probation Department commenced grading activities as part of repairs to an existing sewage pond, but was ordered to stop work because U.S. Fish and Wildlife and California Department of Fish and Game permits were not secured. The applicant claims this activity was not related to the RPLA expansion project, because it was for repairs and not expansion, and also notes the activity was of insufficient size to trigger coverage under State Water Resources Control Board Water Quality Order No. 99-08-DWQ, the NPDES General Permit for Storm Water Discharges Associated with Construction Activity. The project was found by the agencies, however, to have impacted jurisdictional waters and sensitive upland habitat without appropriate permits. As a result, the applicant is currently working with CDFG and USFWS regarding mitigation and will be required to apply for a section 404 permit from the U.S. Army Corps of Engineers and, therefore, a 401 water quality certification from the Regional Board. On October 11, 2002 Regional Board staff responded to a County request for expanding the Joplin wastewater disposal limits. Staff stated the submitted report of waste discharge was incomplete and listed items that needed to be addressed before the project could be approved and a new WDR or addendum be issued. The County has not provided responses to date.

The proposed project will directly impact approximately three-quarters (0.74) of an acre of jurisdictional waters of the U.S. Indirect impacts may occur from the discharge of runoff from the RPLA facility site and new access road. The proposed mitigation will compensate for direct impacts and the proposed BMPs will treat runoff and protect against erosion from the RPLA site and new access road. The applicant has addressed potential impacts to water quality standards through avoidance, planning, and BMP design. It is staff's conclusion that based on information submitted, the proposed project, if implemented as described, will not result in exceedence of water quality criteria, impairment of beneficial uses, or contribute to the degradation of Arroyo Trabuco Creek.

V. ATTACHMENTS

1. Regional Location Map
2. Local Vicinity Map
3. Rancho Potrero Leadership Academy Conceptual Site Plan
4. Existing site condition photos